# FACT SHEET

## Module 17 Alcohol Facts

### Peer Pressure
Many times teenagers (and even adults) do not like to admit that they are influenced by others. No one enjoys being thought of as different or as an outsider. Peer pressure can be channeled toward not drinking as well as toward drinking.

### Influence of Parents
Parental influence could be either for good or bad. If a teen comes from a home where alcohol is abused, this could lead the teen to also abuse alcohol. Children who come from homes of parents who do not drink are less likely to drink themselves. Thus, parental influence is significant in either direction.

### Sociological Factors
Our culture is one which, for the most part, readily accepts drinking. Even the word "drink" has often come to mean "drink alcohol." As with other factors, sociology may work for no drinking or for less drinking, if that is the nature of the cultural surroundings.

### Anxiety, Frustration, etc.
Worry about school, athletics, boy/girl friends, jobs, family, etc., are all part of growing up.


### To Have a Good Time
Drinking is associated with "partying" for a large percentage of teenagers. This is probably brought on by a combination of advertising, misconceptions, peer pressure and feelings of inadequacy.

### BLOOD ALCOHOL CONCENTRATION (BAC)

Concentration is the ratio between alcohol and blood. For example: a 0.10 percent BAC means that there is 1 drop of alcohol for every 999 drops of blood or 1 part per thousand.

### Montana Laws
Montana laws provides that a person driving with a blood alcohol concentration of 0.04 percent but less than 0.08 percent may be charged with DUI if that fact is considered with other competent evidence

- Under the law, a driver is presumed to be impaired when the blood alcohol concentration reaches or exceeds 0.08 percent
- For any impaired driving, there are serious, long-term consequences

### First Time Offenders
- Will receive a minimum sentence of 24 hours in the county jail and a $300 fine
- Could potentially be sentenced to a $1,000 fine and six months in county jail imprisonment
- License may be suspended pending successful completion of a court-ordered chemical dependency assessment, education or treatment

### Multiple Offenders

- Could be sentenced to fines up to $5,000, consecutive periods as long as 48 hours in county jail, additional mandatory imprisonment for up to 30 days (of which portions as long as 10 days may not be suspended by the judge) and total jail sentences as long as one year, some or all of which may be suspended by the judge pending successful completion of a chemical dependency treatment program

### How Much is too Much?

You cannot trust yourself or your friends to judge the quality of your driving after you've had a few drinks. Your ability to drive may be impaired long before you or anyone else notices outward signs. If you drink enough to increase your alcohol concentration past 0.05, be careful. At slightly above 0.05, the risk of causing an accident doubles. At 0.10, the risk is six times as great. At 0.15, the risk is 25 times as great.

### Is Beer Safer than Whiskey?

A jigger (1.5 ounces) of 80-proof whiskey, five ounces of table wine, or 12 ounces of beer all contain approximately the same amount of alcohol— about an ounce each. Studies have found the greatest percentage of people arrested for driving under the influence had been drinking beer.


### Weight

Larger persons have more blood and other fluids than smaller persons; this helps dilute the concentration of alcohol in the blood.

### Time Spent Drinking

The faster you drink, the faster your BAC rises. Three drinks in an hour will have a more profound effect than three drinks in three hours.

### Gender

Women do not process alcohol as well as men due to weight and body composition. Men have more fluid in their bodies; therefore the added fluid (alcohol) will be more diluted.

### Food

Alcohol passes directly through your stomach and small intestine into the bloodstream, where it flows to all parts of your body. On an empty stomach this process takes place almost immediately. On a full stomach, it takes somewhat longer. Food does not soak up or absorb the alcohol but may coat the lining of the stomach and slow absorption somewhat. Food can slow down the absorption of alcohol. This delaying action prevents large amounts of alcohol from going to your head immediately. But eating won't prevent the absorption of alcohol into your system. Once alcohol is in your bloodstream, neither aspirin, black coffee, deep breathing, a slap in the face, exercise, nor eating will sober you up. Only time will return you to normal.

### Alcohol Content in Drink

The higher in alcohol content a drink is, the higher BAC it will produce. If the drink is mixed with a carbonated beverage such as club soda, the carbonation will increase the absorption rate of the alcohol.

## EFFECTS ON THE BODY

### Brain

Long-term effects of alcohol on the brain includes destruction of brain nerve cells. The short-term effects of alcohol on brain function include:

- Relaxation
- Loss of inhibition
- Loss of judgment
- Loss of self-control

As a result, you may feel stimulated, lively, and a bit giddy or foolish.

After two to four drinks, alcohol begins to impair your:

- Reaction time
- Coordination
- Balance
- Vision

Ability to judge distance suffers too, making it harder to react to dangers ahead. In heavy doses, alcohol can be a mood changer producing sudden shifts in mood all the way from elation to anger.

Studies show a combination of alcohol and anger is responsible for much of the reckless, aggressive driving that often causes fatal highway crashes.

## ALCOHOL AFFECTS PERSONS DIFFERENTLY

### Tolerance

A given amount of alcohol does not affect all persons the same way or a given person the same at all times.

### Personality

Each person has a distinct and unique personality. Thus, alcohol may affect a very outgoing person differently than a reserved, shy person.

### Mood

If a person is angry, happy, or sad, he or she may react quite differently to alcohol. Anger, for example, affects the same part of the brain as does alcohol, and, thus, if a person is angry and drinking, the effects of alcohol may be greatly heightened. It is important also to note that moods often change as a result of using alcohol.

### Experience

Lack of experience in any area may be detrimental. This is especially true of drinking and driving. Beginning drivers do not have a lot of experience on the road, nor with alcohol.

### Fatigue

If a person is physically or mentally tired, it does not take much alcohol to produce an adverse effect.

### Medication

Any other drug, whether prescribed by a doctor, bought over-the-counter, or taken illegally, will interact with alcohol to alter alcohol's effect. The chemical reaction between and among alcohol and other drugs may produce an effect which is much greater than the alcohol or drug taken alone.

## PSYCHOLOGICAL EFFECTS

### Attention

Alcohol usually affects a person's ability to concentrate on several sources of incoming information more than to concentrate on just one source of information. Since the driving task requires attention to a large number of items, this is an important concept.

### Memory
This is not necessarily the "blackout" concept, but it is, rather, the inability to store and retain information. Decreased ability has been found to occur with a BAC as low as 0.03 percent.

### Emotions
Simple observation demonstrates that emotional control tends to be lost as more alcohol is consumed.

### Aggression
Aggressive behavior tends to be enhanced, especially in males, when they are placed in a competitive situation. This is easily observable in driving situations.

### Tolerance
Psychological tolerance to alcohol involves the person's ability to mask the effects of alcohol. Persons learn to develop coping behaviors, or not to participate in activities that might reveal their impairment. Unfortunately, such masking may prevent others from helping the intoxicated person, because they do not see impairment. You cannot trust yourself or your friends to judge the quality of your driving after you've had a few drinks. Your ability to drive may be impaired long before you or anyone else notices outward signs.

## EFFECTS OF ALCOHOL ON SPACE MANAGEMENT

### Searching/Identifying
The prime sense humans use in driving is vision. Even low levels of alcohol (0.03) have been found to reduce this ability. Alcohol affects vision in a number of ways. This is particularly important since about 90 percent of what a driver "identifies" is by use of his/her eyes. The prime reason for visual problems after use of alcohol is lessened muscular control. Alcohol relaxes the fine muscles of the eye which focus and control eye movement. Dynamic (vision of motion) vision is more affected than static (vision related to non-moving objects) vision.

### Eye Focus
The human eye has the ability to change focus rapidly from objects close to the viewer to objects far away. Alcohol delays this process; thus, a driver may experience difficulty, especially at higher speeds.

### Double Vision
Although humans have two eyes, each eye must work in conjunction with the other. Alcohol impairs this coordination and may produce a double image. Some drivers close one eye to cope with this, but this greatly affects the next two areas—distance judgment, and side vision.

### Distance Judgment
A driver must be able to determine how far objects are from his/her path of travel. This is complicated by movement of other objects. Alcohol reduces the ability to judge distance accurately.

### Side Vision
Sometimes called peripheral vision, this ability is critical to the driving task. A person's central vision is very narrow and drivers must be able to take in a number of things to each side of their path of travel. Speed also reduces side vision.

### Visual Acuity
This is sharpness of vision. Alcohol may make images blur for the driver and thus impair the ability to identify properly what is in the traffic scene.

### Color Distinction
Drivers get much information from different colors in the traffic scene. Red is used on three types of signs: stop, yield, or some prohibition of action. If alcohol is impeding a driver's ability to determine accurately the color of a sign or traffic light, problems for the rest of the time and space management process will occur.

## Night Vision

Humans have limited night sight at best, and alcohol reduces this ability further. In addition, alcohol reduces the control of light entering the eye. This is important, since drivers must adapt from the situation of no oncoming light to that of headlights shining in their eyes.

## How Drinking Affects Driving

Drinking affects your thinking. It also slows your reaction time. By making you feel good, alcohol may also give you false confidence. Such factors affect your driving in ways that a trained law officer can detect. Some signs of driving drunk are:

- Speeding: Drinking drivers often think they can drive safely at high speeds.
- Weaving: Even though drivers may stay in their lane, they may have trouble steering straight.
- Slow driving: Drinking drivers may be overly cautious and drive slower than normal traffic.
- Jerking motion: Drinking drivers often have short mental lapses revealed by jerky steering or acceleration.
- Quick stops: Drinking drivers may make sudden stops at traffic signs or lights, rather than easing up to them.

If you have to drive, you should avoid taking any drug that might hamper your ability to operate your vehicle.

- Prescription Drugs: When your doctor writes out a prescription, ask the doctor if it will make you drowsy or otherwise affect your driving. If so, let someone else drive while you are taking the drug.

- Over-the-Counter Drugs: Over-the-counter drugs include such things as pain relievers, lozenges, and cough and cold remedies. By law, these drugs must provide directions for use. Read the label. If driving is discouraged, don't get behind the wheel.

- Illegal Drugs: Illegal drugs come in three varieties: stimulants that speed you up, depressants that slow you down, and hallucinogens that affect the way you see things. All three can be dangerous when mixed with driving.

## Some common drugs and their effects

- Amphetamines are stimulants. Fatigued people, including drivers, sometimes use them to stay awake. The danger is that amphetamines often give a false sense of alertness and increased self-confidence, which may increase a person's willingness to take risks.
- Cocaine is a stimulant. In moderate doses it may result in extreme stimulation and hallucination.
- Tranquilizers are depressants. They slow down the nervous system and cause drowsiness. Besides decreasing alertness, they can affect sight, coordination, and driver reaction.
- Barbiturates slow down the nervous system. They can make thinking difficult, affect emotions, and cause drowsiness. Alertness, attention, judgment, and reaction time may be affected for several hours after taking barbiturates.
- Marijuana is a mild hallucinogen that delays a driver's response to sights and sounds so it takes longer to react to a dangerous situation. Marijuana causes a severe loss of night vision that is compounded by vehicles with tinted windshields. Together, the two can cause a combined loss of up to 70 percent of night vision.

## Perception

This involves giving meaning to human senses of vision, hearing, etc. Unless a driver accurately understands what he/she sees, it is impossible to react appropriately.

## Judgment

Accurate decisions are based on a driver's ability to assess and judge a given driving situation. Poor judgments often result in collisions.

## Coordination

Drivers must coordinate hand, eye, and foot movements to successfully operate a motor vehicle. Loss of such ability greatly handicaps performance.

### Vision
As has been previously stated, vision is the key to the time and space management process and safe driving. Visual impairments make it difficult to predict, decide, and execute appropriately.

### Mood
A driver's mood may cause him/her to take unnecessary risks or be so lethargic as to fail to act correctly in a dangerous situation.

### Marijuana
Because marijuana is the drug most often found in drivers involved in crashes (after alcohol) and because more research data is available on marijuana than other drugs, specific attention is provided. The ability to perform a series of tasks can also be affected by smoking marijuana. As a result, a marijuana smoker's biggest driving problems occur when faced with unexpected events, such as a car approaching from a side street or a child running out from between parked cars. The greater the demands of a driving situation, the less able the marijuana smoker will be able to cope.

### Loss of Tracking Ability
This is the ability to maintain a vehicle in a given line.

### Following Distance
Both following too close or too great a distance can cause problems.

### Vigilance
Not remaining attentive to the driving task can cause a driver to follow too closely, drift into another lane, etc.

### Divided Attention
Driving is a task that requires constant but changing attention to traffic, roadway and weather conditions, passengers, gauges, etc. Failure to correctly divide attention produces unsafe driving.

When drugs are combined, their effects multiply and are not easily identified or measurable.